

**Exercise 1** For each function, select all zeros of the given function. If there are none, do not select any options.

- (a) Let  $f$  be a function defined by  $f(x) = |x + 7|$ . Select all zeros of  $f$ .

**Select All Correct Answers:**

- (i) 0
- (ii) 7
- (iii)  $-7$  ✓
- (iv)  $-14$

- (b) Let  $g$  be a function defined by  $g(x) = |x| - 7$ . Select all zeros of  $g$ .

**Select All Correct Answers:**

- (i) 0
- (ii) 7 ✓
- (iii)  $-7$  ✓
- (iv)  $-14$

- (c) Let  $h$  be a function defined by  $h(x) = \frac{1}{4}|x - 6| - 3$ . Select all zeros of  $h$ .

**Select All Correct Answers:**

- (i)  $-6$  ✓
- (ii) 0
- (iii) 6
- (iv) 12
- (v) 18 ✓

- (d) Let  $j$  be a function defined by  $j(x) = x - |x| + 22$ . Select all zeros of  $j$ .

**Select All Correct Answers:**

- (i)  $-22$
- (ii)  $-11$  ✓
- (iii) 0
- (iv) 11
- (v) 22